

USPTO Customer No. 25280

Case 9265

REMARKSRejections under 35 USC 103

Claims 32-45 and 48-50 are rejected under 35 USC 103(a) as being unpatentable over US Patent 6,630,414 to MATSUMOTO in view of US Patent 6,187,245 to HEDLEY.

The argument presented by the Office in making this rejection is essentially as follows:

MATSUMOTO discloses a three-dimensional net having a first mesh web, a second mesh web, and connecting yarns connecting said first and second mesh webs (i.e., a spacer fabric). The first mesh web has larger openings than those of the second mesh web (i.e., a substantially closed structure relative to the first mesh web openings). The larger mesh openings preferably have a diameter of 5-100 mm, while the smaller mesh openings have a diameter of 1-50 mm. Said spacer fabric is a warp-knit fabric made on a double Raschel machine having a preferred gauge of 18-6, although yarns of 22-16 gauge may be used. The spacer fabric comprises yarns made of synthetic mono- or multi-filaments for the mesh webs and preferably synthetic monofilaments for the connecting yarns. The size of the yarns for the mesh webs is 50-2000 denier, while the connecting yarns are 100-1000 denier. The thickness of the spacer fabric is 2-100 mm. Said fabric is suited for use in mats, including floor mats.

Thus, MATSUMOTO teaches the present invention with the exception of the construction of the floor mat. As such, one must look to the prior art for suitable floor mat constructions. Said floor mats having vulcanized rubber backing layers are known in the art. HEDLEY discloses a washable dust control mat comprising a fabric layer and a rubber backing. Said floor mats are made by bonding a rubber backing to a fabric backing in a heated press by curing or vulcanizing the rubber. The preferred rubber backing is made of nitrile rubber and has a thickness of 0.5-3 mm. An exemplary mat has dimension of 120 X 80 cms or an area of about 1 m².

USPTO Customer No. 25280

Case 9265

Hence, it would have been readily obvious to one of ordinary skill in the art to employ a vulcanized nitrile rubber backing layer as taught by HEDLEY as a backing layer for the spacer fabric of MATSUMOTO in order to produce the floor mat disclosed by MATSUMOTO. Motivation to do would be MATSUMOTO's lack of an explicit teaching for the construction of the floor mat and the knowledge that vulcanized rubber backings are suitable for floor mats.

MATSUMOTO, as best understood, teaches the production of a three-dimensional net (or spacer fabric), which may be used as a component in a composite structural material. Among many identified uses for such nets and for composites containing such nets is the use as "materials for various mats such as floor mats, swimming pool mats, and bathroom mats" (Col. 23, lines 4-5). As noted by the Office, MATSOMOTO fails to provide any specific details on the construction of a mat using the subject spacer fabric.

HEDLEY teaches a floor mat with a rubber backing and thickened peripheral edges. The thickened peripheral edges are produced by vulcanizing the rubber backing and the pile fabric in a frame of generally rectangular shape. The rubber flows against a metal rod comprising the frame and produces greater thickness at the edges. HEDLEY fails to teach the use of spacer fabrics as the textile component on the surface of a rubber-backed mat.

Applicant submits that there is no teaching, suggestion, or motivation to combine HEDLEY with MATSUMOTO and that, even if such references were combined, they would fail to teach all of the limitations of the claims.

USPTO Customer No. 25280

Case 9265

MPEP 2143.01 provides:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)

In this instance, MATSUMOTO only generally describes that a spacer fabric may be used for mats or mat materials. HEDLEY describes rubber-backed mats having a pile fabric layer. The references fail to teach that a spacer fabric with a rubber backing is useful as a dust control mat having "good dust removal properties and a very large dust capacity." The MATSUMOTO and HEDLEY references do not contemplate the advantages achieved by the Applicant in making such a combination.

Moreover, the MATSUMOTO reference discusses the use of two spacer fabrics stacked on one another, where the respective sides having the large openings abut one another and the sides with the small openings are on the exterior of the composite (Col. 22, lines 54-57). MATSUMOTO continues that "the abutting portions of the mesh webs function as reinforcing layers, so that though the composite structural material is thick and high in void content, its shape retainability, structural stability, and pressure resistance are satisfactorily retained. For this reason... it can be suitably used for various applications in, for example, ... materials for various mats such as floor mats..." (Col. 22, line 63 – Col. 23, line 4). Thus, MATSUMOTO appears to teach that composites may be used as materials for floor mats, although the reference fails to teach how such may be accomplished. Such a construction falls outside the scope of independent Claims 32 and 49, which have been amended to recite that the textile layer is a single layer consisting of a spacer fabric.

USPTO Customer No. 25280

Case 9265

Regarding the use of a single layer of spacer fabric, MATSUMOTO teaches that "the side associated with the smaller mesh openings is nice to the touch" (Col. 24, lines 46-48). The Office has suggested that it would be obvious to apply a rubber backing to MATSUMOTO's spacer fabric. Assuming that one would like to have a mat surface that is "nice to the touch", one would apply the rubber backing to the side of the spacer fabric having the larger openings, such that the smaller mesh openings make the face of the mat.

However, this configuration is opposite to that claimed by the Applicant. The Applicant has found that orienting the spacer fabric so that the smaller-opening mesh is the bottom layer minimizes the flow-through of molten rubber into the space between the two mesh fabrics (page 3, lines 22-24). The MATSUMOTO spacer fabric, when oriented with the nice-feeling, smaller-opening mesh side up, is rendered unsuitable for its intended purpose as a resilient, structural layer, if combined with a rubber backing, because the molten rubber would flow into the larger openings of the spacer fabric and negatively impact the structural integrity provided by the connection yarns.

MPEP 2143.01 also provides:

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

Finally, the MATSUMOTO and HEDLEY references fail to teach that the side of the spacer fabric that is substantially closed is bonded to the rubber backing (as in Claim 32) and, consequently, that the side of the spacer fabric with the larger openings is the face of the mat (as in Claim 49).

USPTO Customer No. 25280

Case 9265

Because there is no teaching, suggestion, or motivation to combine the references, because there is no reasonable expectation of success in making the proposed combination, and because the references, if combined, fail to teach all of the limitations of the claims, Applicant submits that no *prima facie* case of obviousness exists. Accordingly, Applicant respectfully requests the withdrawal of such rejection.

Claims 32-45 and 48-50 are rejected under 35 USC 103(a) as being unpatentable over US Patent 6,630,414 to MATSUMOTO in view of US Patent 6,187,245 to HEDLEY, as applied to Claims 32 and 49 above, and in further view of US Patent Application Publication No. 2001-0044249 to DeMOTT.

The argument presented by the Office in making this rejection is essentially as follows:

While MATSUMOTO and HEDLEY fail to teach printing the floor mat with a sublimatic printing process at an observable print resolution of at least 75 d.p.i., the printing of floor mats is known in the art. DeMOTT teaches mats, including floor mats, having printed designs thereon for advertising, informational, or promotional purposes. The mats are printed via a transfer mat having dyes that sublimate under heat and pressure of vulcanization of a rubber backing. In one embodiment, the printed mat has a resolution of 360 d.p.i. Therefore, it would have been readily obvious to one of ordinary skill in the art to print the floor mats taught by MATSUMOTO and HEDLEY in order to provide an aesthetically pleasing design and/or provide advertising or promotional information.

Applicant believes, based on the Examiner's comments, that this rejection is intended to be directed to Claims 46, 47, and 51-53, rather than the Claims listed above. The following comments are based upon this assumption.

USPTO Customer No. 25280

Case 9265

The MATSUMOTO and HEDLEY references have been discussed above. As previously mentioned, the references fail to teach that the substantially closed fabric layer is bonded to the rubber backing and that the larger-opening fabric layer is the face of the mat.

Claims 46, 47, and 51-53 are directed to the printing of images on the face of the textile layer. The addition of DeMOTT, which teaches transfer printing of a plush fabric, does not overcome the shortcomings of the MATSUMOTO and HEDLEY references. Furthermore, Applicant respectfully disagrees with the position of the Office that it would have been obvious to print on a spacer fabric having relatively large openings, when the MATSUMOTO reference does not provide any motivation for such a modification.

Because the combination fails to teach all of the limitations of the claims and because there is no teaching, suggestion, or motivation to combine the claims, based on the explicit or implicit disclosures of the references, Applicant respectfully submits that no *prima facie* case of obviousness exists. For this reason, Applicant requests the withdrawal of such rejection.

USPTO Customer No. 25280

Case 9265

CONCLUSION

In view of the previous remarks, Applicants respectfully submit that this application is now in condition for allowance. Entry of this Amendment, reconsideration of the subject matter of Claims 32-53 in light of the above Remarks, and issuance of a formal Notice of Allowability of such claims is courteously solicited.

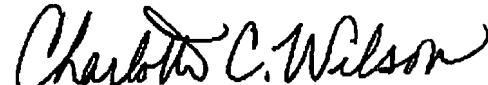
Should any issues remain after consideration of these Remarks, the Examiner is invited and encouraged to telephone the undersigned in the hope that any such issue may be resolved promptly and satisfactorily.

It is believed that this response is being timely submitted and, as such, that no fees are owed with this submission. In the event that there are fees associated with the submission of these papers (including extension of time fees), authorization is hereby provided to withdraw such fees from Deposit Account No. 04-0500.

Respectfully submitted,

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